

# CURRICULUM VITAE – DR ANDREW RIDLEY



Name: Andrew Ridley  
Position: Managing Director  
Nationality: British  
Qualifications: BSc (Hons) Civil Engineering (1984)  
MSc DIC Soil Mechanics (1988)  
PhD – The measurement of soil moisture suction (1993)

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## EXPERIENCE SUMMARY

Andrew is the Managing Director of Geotechnical Observations Ltd and was a founding Director of the company. In his current role he has overseen the continued development and growth of the company and is responsible for all aspects of managing the company.

After graduating from Nottingham University in 1984 with an Honours Degree in Civil Engineering, Andrew joined Fugro Limited as a Junior Geotechnical Engineer. He was involved in offshore and land based site investigations using state of the art technology for sampling and in situ testing. Extensive experience was gained in the interpretation of laboratory and in situ tests and the engineering behaviour of offshore piles. In January 1986 he joined W.S. Atkins and Partners. As a member of their Oil and Gas Division he worked as a Geotechnical Engineer with responsibilities for the foundation design of a variety of offshore oil production facilities. He was also involved in the conceptual design of a new generation of lightweight liftable steel jacket structures and a monopod platform. In 1987 Andrew was Assistant Resident Engineer during the installation of three catalytic cracker vessels (450 - 700 Tons) for upgrading the Shell UK Stanlow oil refinery.

In 1988 Andrew completed a Masters Degree in Soil Mechanics at Imperial College and was subsequently invited to do research with Professor John Burland. His first research project was to investigate the volume changes in clay soils subjected to isothermal and temperature induced drying. The results of this study were used to advise about possible design features which might reduce the amount of shrinkage beneath hot oil storage tanks. In 1993 he was awarded a doctorate and the prestigious Unwin Prize (best PhD in Engineering) for his work on the measurement of soil suction. The principal outcome of his research was the development of a new high range tensiometer (“The Suction Probe”) capable of, for the first time, directly measuring suctions in excess of 100kPa. This has since led to a large number of new research streams.

Following a short period of post doctoral research, Andrew joined the permanent staff of the Department of Civil and Environmental Engineering at Imperial College in January 1996 as a Principal Research Fellow. In this role he directed the college’s research activities in the area of partly saturated soils. He was invited to deliver the state-of-the-art address on suction measurement to the 1st International Conference on

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Unsaturated Soils in Paris in 1995. He has published widely on this subject, convened two short courses at Imperial College and has spoken at numerous Learned Society Meetings and Conferences.

During his time as a Research Fellow Andrew started working with Professor Peter Vaughan on the London Underground Knowledge and Planning Programme aimed at establishing a new Engineering Standard for earth structures. It was during this time that Andrew developed a flushable piezometer for the in situ measurement of soil suctions. This tool has been used to study slope stability throughout the world and was the driver behind the establishment of Geotechnical Observations in April 2000.

At the same time as forming Geotechnical Observations Andrew was appointed a part-time lecturer in the Department of Civil and Environmental Engineering at Imperial College, where he taught MSc Soil Mechanics (Laboratory & Field Techniques and Partly Saturated Soil Mechanics) and MSc Engineering Geology (Basic Soil Mechanics). He left Imperial College in March 2004 to concentrate on the development of the Company, but remains in contact with this and other Universities on academic matters.

In recent years Andrew has turned his attentions to the wider subject of instrumentation and the application of new monitoring techniques to the study of ground and structural behaviour. He is particularly interested in the use of remote logging and rapid logging to enable near “real-time” monitoring. He continues to bring to the industry the same enthusiasm and drive that he always has and strives to provide the best possible service.

Andrew has also sat on the Steering Committees for various industry and research projects including the *CIRIA 550 Infrastructure Embankments – Condition Appraisal and Remedial Treatment* and was a member of the sub-committee to the Advisory Panel of Géotechnique for the 2011 Symposium in Print on *Partial Saturation in Compacted Soils*. He is currently a member the Task Group for CEN/TC 341/WG which is considering the impacts of Eurocode on Geotechnical Monitoring.